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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Raymond J. Kelley et al.

Serial No.: 09/747,661

Filed: December 22, 2000

For: MEDICAL IMAGING SYSTEM
ENHANCEMENT PERFORMANCE
TOOL

§ Group Art Unit: 3626
§
§ Examiner: Morgan, Robert W.
§
§ Atty. Docket: GEMS:0120/YOD/SWA/EUB
§ 15-EC-5771
§

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October 11, 2005
Date

Christina Hartline
Christina Hartline

APPEAL BRIEF PURSUANT TO 37 C.F.R. §§ 41.31 AND 41.37

This Appeal Brief is being filed in furtherance to the Notice of Appeal mailed on August 4, 2005, and received by the Patent Office on August 8, 2005.

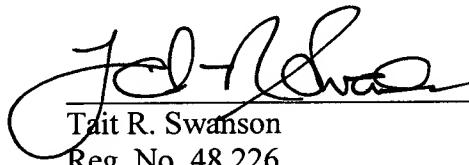
The Commissioner is authorized to charge the requisite fee of \$500.00 for this Appeal Brief, and any additional fees which may be necessary to advance prosecution of the present application, to Deposit Account No. 07-0845, Order No. 15-EC-5771/YOD (GEMS:0120). Further, in accordance with 37 C.F.R. § 1.136, Appellants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request therefor. Furthermore, Appellants authorize the Commissioner to charge the appropriate fee for any extension of time to Deposit Account No. 07-0845, Order No. 15-EC-5771/YOD (GEMS:0120).

Conclusion

In view of the above remarks, Appellants respectfully submit that the Examiner has provided no supportable position or evidence establishing a *prima facie* case of obviousness with respect to claims 1-53. Consequently, Appellants respectfully submit that all pending claims are in condition for allowance. However, if the Examiner or Board wishes to resolve any other issues by way of a telephone conference, the Examiner or Board is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: October 11, 2005



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1. **REAL PARTY IN INTEREST**

The real party in interest is General Electric Company, the Assignee of the above-referenced application by virtue of the Assignment recorded at reel 011422, frame 0186, and recorded on December 22, 2000. General Electric Company, the Assignee of the above-referenced application, as evidenced by the documents mentioned above, will be directly affected by the Board's decision in the pending appeal.

2. **RELATED APPEALS AND INTERFERENCES**

Appellants are unaware of any other appeals or interferences related to this appeal. The undersigned is Appellants' legal representative in this appeal.

3. **STATUS OF CLAIMS**

Claims 1-53 are currently pending, are currently under final rejection, and, thus, are the subject of this appeal. Appellants note that the above-identified application was mistakenly filed with two claims indicated as claim 6. Appellants canceled the second occurrence of claim 6 in a previous communication, leaving only the first occurrence of claim 6, which is the version of claim 6 reproduced in the appendix of claims provided below.

4. **STATUS OF AMENDMENTS**

The instant claims have not been amended subsequent to the Final Office Action mailed April 26, 2005. Consequently, there are no outstanding amendments to be considered by the Board.

5. **SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention relates generally to performance analysis systems. *See* Application, page 1, lines 5-7. More particularly, the present invention relates to a novel technique for analyzing productivity of medical resources, such as imaging devices, for a medical facility. *See id.* The present application contains four independent claims,

namely claims 1, 19, 31, and 41, all of which have been improperly rejected and, thus, subject to this appeal. The subject matter of these claims is summarized below.

With regard to the aspect of the invention set forth in independent claim 1, discussions of the recited features of claim 1 can be found at least in the below cited locations of the specification and drawings. By way of example, an embodiment in accordance with the present invention relates to a method for analyzing productivity of a medical resource (e.g., 12), the method comprising electronically directing client data (e.g., 96) transmitted from a remote interface (e.g., 24) to a productivity analysis system (e.g., 22) via a network (e.g., 80). *See, e.g., id.* at page 5, lines 14-26; page 9, lines 4-6; page 10, lines 25-28. The productivity analysis system is configured to evaluate a plurality of medical resources associated with at least one of a plurality of medical system modalities (e.g., 14, 16, and 18) and the client data comprises operational data relating to a medical system that includes a medical diagnostic system employed at a medical facility. *See, e.g., id.* at page 5, lines 14-19; page 6, lines 16-21. The method also includes analyzing the client data with the productivity analysis system and providing a productivity analysis report (e.g., 236) to a client via the network that allows the client to evaluate medical resource productivity at the medical facility. *See, e.g., id.* at page 11, line 1 – page 12, line 3; page 16, lines 13-16.

With further regard to the aspect of the invention set forth in independent claim 19, discussions of the recited features of claim 19 can be found at least in the below cited locations of the specification and drawings. By way of example, an embodiment in accordance with the present invention relates to a system for analyzing productivity of a medical resource (e.g., 12). *See, e.g., id.* at page 5, lines 14-19. The system includes a productivity analysis system (e.g., 22) configured for analyzing productivity of a medical resource including a medical diagnostic system (e.g., 14, 16, and 18). *See, e.g., id.* at page 5, lines 14-26. The system also includes a remote interface (e.g., 24) configured for exchanging information with the productivity analysis system via a network (e.g., 80). *See, e.g., id.* at page 5, lines 22-26; page 9, lines 4-6. The remote interface has a form (e.g., 118) for transmitting client data (e.g., 96) including medical procedure data associated with the

medical diagnostic system to the productivity analysis system. *See, e.g., id.* at page 8, line 29 – page 9, line 2; page 10, lines 25-28; page 12, lines 27-30; *see also* FIG. 4. The productivity analysis system is configured to generate a productivity report (e.g., 236) from the client data to allow a client to evaluate medical resource productivity at a medical facility. *See, e.g., id.* at page 11, line 1 – page 12, line 3; page 16, lines 13-16; *see also* FIG. 5.

Additionally, with respect to the aspect of the invention set forth in independent claim 31, discussions of the recited features of claim 31 can be found at least in the below cited locations of the specification and drawings. By way of example, an embodiment in accordance with the present invention relates to a productivity tool for analyzing productivity of a medical resource (e.g., 12). *See, e.g., id.* at page 5, lines 14-19. The tool includes a productivity analysis system (e.g., 22) configured for analyzing productivity of a medical resource including a medical diagnostic system (e.g., 14, 16, and 18). *See, e.g., id.* at page 5, lines 14-26. Further, the tool includes a medical resource database (e.g., 88) accessible by the productivity analysis system, the medical resource database having operating statistics for a plurality of medical resources. *See, e.g., id.* at page 9, lines 27-31. The tool also includes a remote interface (e.g., 24) configured for exchanging information with the productivity analysis system via a network (e.g., 80). *See, e.g., id.* at page 5, lines 22-26; page 9, lines 4-6. The remote interface has data entry fields (e.g., 158) for transmitting client data (e.g., 96), which includes medical procedure statistics associated with the medical diagnostic system for a medical facility, to the productivity analysis system. *See, e.g., id.* at page 10, lines 25-28; page 14, lines 1-24; *see also* FIG. 4. The remote interface also has at least one page for displaying a productivity analysis (e.g., 236) provided by the productivity analysis system. *See, e.g., id.* at page 11, line 1 – page 12, line 3; page 16, lines 13-16; *see also* FIG. 5.

Finally, with respect to the aspect of the invention set forth in independent claim 41, discussions of the recited features of claim 41 can be found at least in the below cited locations of the specification and drawings. By way of example, an embodiment in

accordance with the present invention relates to a method for analyzing productivity of a resource (e.g., 12). *See, e.g., id.* at page 5, lines 14-19. The method includes electronically directing client data (e.g., 96), which comprises procedure statistics associated with an imaging system (e.g., 14, 16, and 18), from a remote interface (e.g., 24) to a productivity analysis system (e.g., 22) via a network (e.g., 80). *See, e.g., id.* at page 5, lines 14-26; page 6, lines 16-21; page 9, lines 4-6; page 10, lines 25-28. The productivity analysis system is configured to evaluate a plurality of medical resources associated with at least one of a plurality of medical system modalities (e.g., 14, 16, and 18) and the client data comprises operational data relating to a medical system that includes a medical diagnostic system employed at a medical facility. *See, e.g., id.* at page 5, lines 14-19; page 6, lines 16-21. The method also includes analyzing the client data with the productivity analysis system, generating a productivity analysis (e.g., 236) including a productivity comparison of the imaging system and a proposed upgrade imaging system, and transmitting the productivity analysis to the client over the network. *See, e.g., id.* at page 11, line 1 – page 12, line 3; page 16, line 19 – page 17, line 8; FIGS. 2 and 5.

6. **GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

As a preliminary matter, Appellants note that the grounds of rejection set forth below are based on the rejections Appellants believe the Examiner intended to make in the Final Office Action mailed April 26, 2005, which do not directly correspond to the rejections actually made by the Examiner in this Office Action. In the Advisory Action mailed August 25, 2005, the Examiner attributed the difference between the intended rejections and the actual rejections to a typographical error in the Final Office Action. *See* Advisory Action mailed August 25, 2005, page 2. However, Appellants believe the Examiner made a similar typographical error in the Advisory Action with respect to claim 27, which appears to be improperly grouped with dependent claims 5, 6, 14, 16, and 17. *See id.* Appellants respectfully point out that the Kenner et al. reference was never at any time during prosecution relied upon by the Examiner in rejecting claim 27, or claim 19 from which it depends. Thus, Appellants believe the Examiner intended to reject dependent claim 27 under 35 U.S.C. § 103(a) over the Crane, Powers et al., and

Wong et al. references and in view of Official Notice taken by the Examiner. In the interest of efficiency and clarity, Appellants have made best efforts to set forth the grounds of rejection in the manner Appellants believe the Examiner intended.

First Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's first ground of rejection in which the Examiner rejected claims 1-4, 7-13, 15, and 18 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,748,907 to Crane ("the Crane reference") in view of U.S. Patent No. 6,604,084 to Powers et al. ("the Powers et al. reference") and U.S. Patent No. 6,260,021 to Wong et al. ("the Wong et al. reference").

Second Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's second ground of rejection in which the Examiner also rejected claims 19-21, 24-26, and 28 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references.

Third Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's third ground of rejection in which the Examiner rejected claims 31-34 and 36-38 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references.

Fourth Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's fourth ground of rejection in which the Examiner rejected claims 41-53 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references and U.S. Patent No. 6,314,565 to Kenner et al. ("the Kenner et al. reference").

Fifth Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's fifth ground of rejection in which the Examiner rejected claims 5, 6, 14, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al., Wong et al., and Kenner et al. references.

Sixth Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's sixth ground of rejection in which the Examiner rejected claims 22, 23, 29, and 30 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al., Wong et al., and Kenner et al. references.

Seventh Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's seventh ground of rejection in which the Examiner rejected claims 35, 39, and 40 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al., Wong et al., and Kenner et al. references.

Eighth Ground of Rejection for Review on Appeal:

Appellants respectfully urge the Board to review and reverse the Examiner's eighth ground of rejection in which the Examiner rejected claim 27 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references, and in further view of Official Notice taken by the Examiner.

7. **ARGUMENT**

As discussed in detail below, the Examiner has improperly rejected the pending claims. Further, the Examiner has misapplied long-standing and binding legal precedents and principles in rejecting the claims under Section 103. Accordingly, Appellants respectfully request full and favorable consideration by the Board, as Appellants strongly believe that claims 1-53 are currently in condition for allowance.

A. **Ground of Rejection No. 1:**

The Examiner improperly rejected claims 1-4, 7-13, 15, and 18 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references. Appellants respectfully traverse this rejection.

Legal Precedent

First, the burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d. 1430 (Fed. Cir. 1990). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002).

Second, when prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among

isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Third, Appellants respectfully note that, during patent examination, the pending claims must be given an interpretation that is *reasonable* and *consistent* with the specification. *See In re Prater*, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969); *see also In re Morris*, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); *see also* M.P.E.P. §§ 608.01(o) and 2111. Moreover, any interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. *See In re Cortright*, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); *see also* M.P.E.P. § 2111.

Appellants certainly appreciate the difficulty faced by the Examiner in interpreting the claims in view of the specification without improperly importing limitations from the specification into the claims. However, Appellants respectfully note that the Federal Circuit, sitting *en banc*, recently provided a summary and additional guidance regarding the proper interpretation of claims in view of the specification. *See Phillips v. AWH Corp.*, No. 03-1269, -1286 (Fed. Cir. 2005). In *Phillips*, the Federal Circuit again emphasized the primacy of the specification in claim interpretation. Particularly, the *Phillips* court noted that the specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; *it is the single best guide to the meaning of a disputed term.*” *Phillips*, slip op. at 13 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)) (emphasis added). Moreover, the court also noted that:

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language *and most naturally aligns with the patent's description of the invention* will be, in the end, the correct construction.

Phillips, slip op. at 15 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)) (emphasis added).

In view of this binding legal precedent, Appellants respectfully submit that the claim interpretation provided in the Office Action mailed April 26, 2005, extends beyond the reasonable interpretation that would be afforded the claims by one skilled in the art in view of the specification.

Deficiencies of the Rejection

Independent claim 1 recites:

A method for analyzing productivity of a medical resource, the method comprising:

electronically directing client data transmitted from a remote interface to a productivity analysis system via a network, wherein the productivity analysis system is configured to evaluate a plurality of medical resources associated with at least one of a plurality of medical system modalities, the client data comprising operational data relating to a medical system employed at a medical facility, the medical system comprising a medical diagnostic system;

analyzing the client data with the productivity analysis system; and providing a productivity analysis report to a client via the network, the productivity analysis report allowing the client to evaluate medical resource productivity at the medical facility.

Appellants respectfully note that the Crane, Powers et al., and Wong et al. references fail to disclose each element of independent claim 1. For instance, independent claim 1 recites “client data comprising *operational data relating to a medical system* employed at a medical facility” (emphasis added). Because the cited references fail to disclose such an element, the cited references cannot support a *prima facie* case of obviousness with respect to independent claim 1.

In the Final Office Action, the Examiner conceded that Crane and Powers et al. fail to “explicitly teach client data from medical system modalities comprising a medical diagnostic system.” Final Office Action mailed April 26, 2005, page 3. Appellants note

that independent claim 1 actually recites “client data comprising operational data relating to a medical system,” and not just “client data from medical system modalities.” Further, Appellants respectfully note that the Final Office Action is at least ambiguous with respect to the rationale for the present rejections and fails to indicate which element or elements the Examiner believes Wong et al. discloses. In one instance, the Examiner appears to explain his reliance on the Wong et al. reference by stating: “The Examiner the communication between the client and server objects to including client data from the different PAC system” (errors in original). It should be noted that Appellants’ present remarks are a genuine attempt to address the Examiner’s rejections and rationale.

In an attempt to obviate the deficiencies of the Crane and Powers et al. references, the Examiner additionally cited Wong et al. as teaching “client data comprising operational data relating to a medical system.” As noted by the Examiner, the Wong et al. reference teaches a picture archiving and communication system (PAC), i.e. a computer system for storing and transmitting *image* data. Wong et al. reference, col. 1, lines 21-38. Appellants, however, respectfully note that image data obtained from a PAC has nothing to do with the actual *operation* of a medical system and, hence, the image data of Wong et al. cannot be *reasonably* equated with “client data comprising operational data relating to a medical system” as recited by independent claim 1. Consequently, Appellants submit that the prior art of record fails to disclose each and every element of independent claim 1.

Moreover, even if, for the sake of argument, image data could be considered in a vacuum to be “client data comprising operational data relating to a medical system,” it is apparent that the image data of Wong et al. is not logically comparable to the presently recited data and that such a comparison is based on a claim construction that extends beyond the broadest *reasonable* interpretation that would be reached by one skilled in the art. Independent claim 1 further recites a productivity analysis system, “*analyzing the client data* with the productivity analysis system” (emphasis added), and “providing a productivity analysis report.” Appellants again respectfully note that the Wong et al. data

is *image data*. As noted previously, image data *cannot* be analyzed to determine the productivity of the device that produces the image. *See Response to Final Office Action* filed June 27, 2005.

As would be appreciated by one skilled in the art, a person cannot walk into an art museum, look at a painting, and thereby determine the productivity of the artist who produced the painting. Further, a person cannot analyze a photograph to determine the efficiency of the camera with which it was taken. Similarly, Appellants respectfully submit that the image data of Wong et al. cannot be analyzed to determine the productivity of a medical resource. In fact, neither the art of record nor the Examiner suggests that such analysis is possible. While Appellants maintain that image data cannot be properly construed as operational data, it is evident that, because the image data cannot be analyzed for productivity, the image data of Wong et al. cannot be logically equated with the data recited by the present claim. Moreover, the Powers et al. and Crane references fail to obviate the deficiencies of the Wong et al. reference.

In the Advisory Action mailed August 25, 2005, the Examiner changed his argument with respect to the claims, including independent claim 1, such that the Wong et al. reference was no longer relied upon to suggest “client data comprising operational data relating to a medical system.” *See* Advisory Action mailed August 25, 2005, page 5. In this new formulation, the Examiner suggests that the Wong et al. reference was relied on for “teaching a medical diagnostic system including picture archiving and communication.” *Id.* Further, the Examiner proposed a new combination of the applied references in which the images of the Wong et al. reference are incorporated with the “data used for evaluating productivity report as taught by the system of Crane and Powers” (errors in original). *Id.* However, even this new proposed combination does not support a *prima facie* case of obviousness.

Particularly, the data taught in the Crane reference and now relied upon by the Examiner is just as deficient as the image data disclosed by Wong et al. As would be

appreciated by one skilled in the art, the Crane reference is directed to addressing common logistical problems in the healthcare service industry by providing a fully automatic management system to increase efficiency of medical facilities. Crane reference, col. 6, lines 42-45. The Crane system automatically manages, for instance, patient and employee flow, scheduling of appointments, invoicing, patient addresses, insurance information, and other such *clerical* details. *See, e.g., id.* at col. 6, lines 45-47; *see also* FIG. 1. Appellants respectfully note that, similar to the image data of Wong et al., the Crane clerical data cannot be analyzed to determine the productivity of a medical resource or diagnostic system. The Powers et al. reference fails to obviate the apparent deficiencies of the Wong et al. and Crane references. Further, even under this new formulation, because the Wong et al. data is unable to be analyzed for productivity, one skilled in the art would not be motivated to include images or pictures in a medical facility clerical tool.

Thus, while the Examiner has searched the prior art to piece together individual words recited by independent claim 1 (i.e., improper hindsight reconstruction), the Examiner has failed to show each and every element of independent claim 1 or to provide a logical rationale as to why one skilled in the art would be motivated to add a picture archiving system to a clerical tool that facilitates clerical aspects of operating a hospital or other medical facility. Accordingly, because the cited references fail to disclose each and every element, and because the Examiner has not provided a tenable motivation to combine, independent claim 1 is believed allowable over the art of record.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the improper obviousness rejection of claims 1-4, 7-13, 15, and 18. Additionally, Appellants respectfully request that the Board direct the Examiner to allow the instant claims.

B. **Ground of Rejection No. 2:**

The Examiner improperly rejected claims 19-21, 24-26, and 28 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references. Appellants respectfully traverse this rejection.

Deficiencies of the Rejection

Independent claim 19 recites:

A system for analyzing productivity of a medical resource, the system comprising:

a productivity analysis system configured for analyzing productivity of a medical resource comprising a medical diagnostic system; and

a remote interface configured for exchanging information with the productivity analysis system via a network, the remote interface having a form for transmitting client data to the productivity analysis system, the client data comprising medical procedure data associated with the medical diagnostic system, wherein the productivity analysis system is configured to generate a productivity report from the client data to allow a client to evaluate medical resource productivity at a medical facility.

The Crane, Powers et al., and Wong et al. references are equally deficient with respect to independent claim 19. For instance, independent claim 19 recites “a productivity analysis system configured for analyzing productivity of a medical resource comprising a medical diagnostic system” and that the system is configured to generate a productivity report from the client data comprising medical procedure data. As summarized above with respect to the improper rejection of claim 1, the arguments for which are incorporated herein by reference, the cited references fail to teach client data comprising medical procedure data that is even capable of being analyzed to determine productivity of a medical resource or diagnostic system. As will be appreciated, the images, addresses, insurance information, appointment schedules, and other such information taught by the art of record simply cannot be analyzed to generate a productivity report for a medical diagnostic system. Further, the Examiner has also failed to provide a logical motivation to combine the cited references. Thus, the Examiner’s rejection of independent claim 19 is clearly improper.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the obviousness rejection in relation to claims 19-21, 24-26, and 28. Additionally, Appellants respectfully request that the Board direct the Examiner to allow the instant claims.

C. **Ground of Rejection No. 3:**

The Examiner rejected claims 31-34 and 36-38 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references. Appellants respectfully traverse this rejection.

Deficiencies of the Rejection

Independent claim 31 recites:

A productivity tool for analyzing productivity of a medical resource, the tool comprising:

a productivity analysis system configured for analyzing productivity of a medical resource comprising a medical diagnostic system;

a medical resource database accessible by the productivity analysis system, the medical resource database having operating statistics for a plurality of medical resources; and

a remote interface configured for exchanging information with the productivity analysis system via a network, the remote interface having data entry fields for transmitting client data to the productivity analysis system and having at least one page for displaying a productivity analysis provided by the productivity analysis system, wherein the client data comprises medical procedure statistics associated with the medical diagnostic system for a medical facility.

Similarly, the Crane, Powers et al., and Wong et al. references fail to support a *prima facie* case of obviousness with respect to independent claim 31. For example, independent claim 31 recites a productivity analysis system that uses client data comprising “medical procedure statistics associated with the medical diagnostic system” to analyze “productivity of a medical resource comprising a medical diagnostic system.” As noted above with respect to the rejections of claims 1 and 19, the arguments for which are incorporated herein by reference, while the cited references may teach image and clerical

data, they fail to teach client data comprising “medical procedure statistics associated with the medical diagnostic system.” Moreover, in direct opposition to the present claim, it is clear that the data that *is* taught in the cited references cannot be analyzed to determine productivity of a medical resource or diagnostic system. Still further, the motivation offered by the Examiner to combine the references is simply untenable for the reasons also provided above. For at least these reasons, the present rejection of independent claim 31 is also clearly improper.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the obviousness rejection with respect to claims 31-34 and 36-38. Additionally, Appellants respectfully request that the Board direct the Examiner to allow the instant claims.

D. **Ground of Rejection No. 4:**

The Examiner rejected claims 41-53 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al., Wong et al., and Kenner et al. references. Appellants respectfully traverse this rejection.

Deficiencies of the Rejection

Independent claim 41 recites:

A method for analyzing productivity of a resource, the method comprising:

electronically directing client data from a remote interface to a productivity analysis system via a network, the client data comprising procedure statistics associated with an imaging system;

analyzing the client data with the productivity analysis system;
generating a productivity analysis comprising a productivity comparison of the imaging system and a proposed upgrade imaging system;
and

transmitting the productivity analysis to the client via the network.

The Crane, Powers et al., Kenner et al., and Wong et al. references also fail to support a *prima facie* case of obviousness with regard to independent claim 41. Independent

claim 41 recites “client data comprising procedure statistics associated with an imaging system” and analyzing the client data with a productivity analysis system. The Crane, Powers et al., and Wong et al. references are deficient for at least the reasons provided above with respect to claims 1, 19, and 31, which are incorporated herein by reference. Particularly, Appellants submit that neither the Wong et al. image data nor the Crane clerical data is properly identifiable as “procedure statistics” as recited by independent claim 41. Further, even if the Wong et al. image data or Crane clerical data could be reasonably compared to *generic* procedure statistics, it is clear that this image and clerical data cannot be analyzed for productivity of a system and, thus, cannot be reasonably compared to the *particular* procedure data or procedure statistics recited in the present claims. Further, the Kenner et al. reference fails to obviate the clear deficiencies of the Crane, Powers et al., or Wong et al. references. Additionally, the motivation offered by the Examiner to combine the references is simply untenable for the reasons also provided above. For at least these reasons, the present rejection of independent claim 41 is clearly improper.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the obviousness rejection of claims 41-53. Appellants further respectfully request that the Board direct the Examiner to allow the instant claims.

E. Ground of Rejection No. 5:

The Examiner rejected claims 5, 6, 14, 16, and 17 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al., Wong et al., and Kenner et al. references. Appellants respectfully traverse this rejection.

Deficiencies of the Rejection

Each of the foregoing rejected claims depends from independent claim 1 discussed above. Moreover, the present obviousness rejection is founded upon the Crane, Powers et al., and Wong et al. references, which are also discussed above. With this in mind, Appellants respectfully assert that the Kenner et al. reference, employed in conjunction with the Crane, Powers et al., and Wong et al. references, does not obviate

the deficiencies of the Crane, Powers et al., and Wong et al. references as discussed in the foregoing remarks regarding the Examiner's rejection of independent claim 1.

Accordingly, Appellants respectfully assert that the instant claims are patentable for their respective dependencies on an allowable base claim, as well as for the additional features recited therein.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the obviousness rejection in relation to claims 5, 6, 14, 16, and 17.

Additionally, Appellants respectfully request that the Board direct the Examiner to allow the instant claims.

F. **Ground of Rejection No. 6:**

The Examiner rejected claims 22, 23, 29, and 30 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al., Wong et al., and Kenner et al. references. Appellants respectfully traverse this rejection.

Deficiencies of the Rejection

Each of the foregoing rejected claims depends from independent claim 19 discussed above. Moreover, the present obviousness rejection is founded upon the Crane, Powers et al., and Wong et al. references, which are also discussed above. With this in mind, Appellants respectfully assert that the Kenner et al. reference, employed in conjunction with the Crane, Powers et al., and Wong et al. references, does not obviate the deficiencies of the Crane, Powers et al., and Wong et al. references as discussed in the foregoing remarks regarding the Examiner's rejection of independent claim 19.

Accordingly, Appellants respectfully assert that the instant claims are patentable for their respective dependencies on an allowable base claim, as well as for the additional features recited therein.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the obviousness rejection with respect to claims 22, 23, 29, and 30.

Additionally, Appellants respectfully request that the Board direct the Examiner to allow the instant claims.

G. **Ground of Rejection No. 7:**

The Examiner rejected claims 35, 39, and 40 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al., Wong et al., and Kenner et al. references. Appellants respectfully traverse this rejection.

Deficiencies of the Rejection

Each of the foregoing rejected claims depends from independent claim 31 discussed above. Moreover, the present obviousness rejection is founded upon the Crane, Powers et al., and Wong et al. references, which are also discussed above. With this in mind, Appellants respectfully assert that the Kenner et al. reference, employed in conjunction with the Crane, Powers et al., and Wong et al. references, does not obviate the deficiencies of the Crane, Powers et al., and Wong et al. references as discussed in the foregoing remarks regarding the Examiner's rejection of independent claim 31. Accordingly, Appellants respectfully assert that the instant claims are patentable for their respective dependencies on an allowable base claim, as well as for the additional features recited therein.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the obviousness rejection of claims 35, 39, and 40. Additionally, Appellants respectfully request that the Board direct the Examiner to allow the instant claims.

H. **Ground of Rejection No. 8:**

The Examiner rejected claim 27 under 35 U.S.C. § 103(a) as unpatentable over the Crane reference in view of the Powers et al. and Wong et al. references, in further view of Official Notice taken by the Examiner. Appellants respectfully traverse this rejection.

Deficiencies of the Rejection

Claim 27 depends from independent claim 19 discussed above. Moreover, the present obviousness rejection is founded upon the Crane, Powers et al., and Wong et al. references, which are also discussed above. With this in mind, Appellants respectfully assert that the Examiner's use of Official Notice, employed in conjunction with the Crane, Powers et al., and Wong et al. references, does not obviate the deficiencies of the Crane, Powers et al., and Wong et al. references as discussed in the foregoing remarks regarding the Examiner's rejection of independent claim 19. Accordingly, Appellants respectfully assert that the instant claim is patentable by virtue of its dependency on an allowable base claim, as well as for the additional features recited therein.

In light of the forgoing remarks, Appellants respectfully request that the Board withdraw the obviousness rejection of claim 27. Additionally, Appellants respectfully request that the Board direct the Examiner to allow the instant claims.

8. **APPENDIX OF CLAIMS ON APPEAL**

Listing of Claims:

1. A method for analyzing productivity of a medical resource, the method comprising:

electronically directing client data transmitted from a remote interface to a productivity analysis system via a network, wherein the productivity analysis system is configured to evaluate a plurality of medical resources associated with at least one of a plurality of medical system modalities, the client data comprising operational data relating to a medical system employed at a medical facility, the medical system comprising a medical diagnostic system;

analyzing the client data with the productivity analysis system; and

providing a productivity analysis report to a client via the network, the productivity analysis report allowing the client to evaluate medical resource productivity at the medical facility.

2. The method of claim 1, wherein electronically directing via the network comprises electronically directing via the Internet.

3. The method of claim 1, comprising providing the remote interface with a form for entering the client data.

4. The method of claim 1, comprising providing a form field for selecting the medical system employed at the medical facility.

5. The method of claim 3, comprising allowing selection of multiple medical systems for productivity comparison.

6. The method of claim 4, comprising providing a form field for selecting an upgrade medical system for productivity comparison with the medical system employed at the medical facility.
7. The method of claim 3, comprising providing a form field for entering time data relating to medical procedures employing the medical system at the medical facility.
8. The method of claim 3, comprising providing a form field for entering revenue data relating to medical procedures employing the medical system at the medical facility.
9. The method of claim 3, comprising providing a form field for entering an operator experience level relating to medical procedures employing the medical system at the medical facility.
10. The method of claim 1, comprising receiving a selection of at least one medical system from a plurality of medical systems comprising multiple medical imaging systems.
11. The method of claim 1, comprising receiving medical procedure statistics of the medical facility, the medical procedure statistics at least partially relating to the medical system.
12. The method of claim 11, wherein receiving medical procedure statistics comprises receiving a mix of medical procedures provided at the medical facility.
13. The method of claim 1, wherein analyzing the client data comprises searching a medical resource database, and accessing medical system statistics.
14. The method of claim 13, wherein accessing medical system statistics comprises accessing medical system statistics for a plurality of medical systems for productivity comparison with the productivity analysis system.

15. The method of claim 1, wherein providing the productivity analysis report comprises providing a procedure efficiency analysis of the medical system for display via the remote interface.
16. The method of claim 1, wherein providing the productivity analysis report comprises providing a productivity comparison between the medical system and at least one other medical system, the productivity comparison allowing the client to evaluate benefits of a system upgrade to the at least one other medical system.
17. The method of claim 16, wherein providing the productivity comparison comprises providing at least one indicator of new procedures provided by the at least one other medical system.
18. The method of claim 1, wherein providing the productivity analysis report comprises providing a graphical illustration of the medical resource productivity at the medical facility.
19. A system for analyzing productivity of a medical resource, the system comprising:
 - a productivity analysis system configured for analyzing productivity of a medical resource comprising a medical diagnostic system; and
 - a remote interface configured for exchanging information with the productivity analysis system via a network, the remote interface having a form for transmitting client data to the productivity analysis system, the client data comprising medical procedure data associated with the medical diagnostic system, wherein the productivity analysis system is configured to generate a productivity report from the client data to allow a client to evaluate medical resource productivity at a medical facility.
20. The system of claim 19, wherein the network comprises the Internet.

21. The system of claim 19, wherein the form comprises a field for selecting the medical diagnostic system employed at the medical facility from a plurality of medical diagnostic systems comprising a plurality of modalities.
22. The system of claim 19, wherein the form is configured for multiple selections of medical diagnostic systems for productivity comparison.
23. The system of claim 21, wherein the form comprises a field for selecting an upgrade medical diagnostic system for productivity comparison with the medical diagnostic system employed at the medical facility.
24. The system of claim 19, wherein the form comprises fields for entering time and volume data associated with medical procedures employing the medical diagnostic system at the medical facility.
25. The system of claim 19, wherein the form comprises a field for entering service charges associated with medical procedures employing the medical diagnostic system at the medical facility.
26. The system of claim 19, wherein the client data comprises a selection of at least one medical diagnostic system from a plurality of medical diagnostic systems comprising medical imaging systems.
27. The system of claim 19, wherein the client data comprises a medical procedure mix illustrating proportionality of medical procedures provided by the medical facility.
28. The system of claim 19, comprising a medical resource database having operating statistics for the medical diagnostic system, the medical resource database being accessible by the productivity analysis system.

29. The system of claim 19, wherein the productivity report comprises a productivity comparison between the medical diagnostic system and at least one other medical diagnostic system, the productivity comparison allowing the client to evaluate benefits of a system upgrade to the at least one other medical diagnostic system.

30. The system of claim 29, wherein the productivity comparison comprises at least one indicator of new procedures provided by the at least one other medical diagnostic system.

31. A productivity tool for analyzing productivity of a medical resource, the tool comprising:

a productivity analysis system configured for analyzing productivity of a medical resource comprising a medical diagnostic system;

a medical resource database accessible by the productivity analysis system, the medical resource database having operating statistics for a plurality of medical resources; and

a remote interface configured for exchanging information with the productivity analysis system via a network, the remote interface having data entry fields for transmitting client data to the productivity analysis system and having at least one page for displaying a productivity analysis provided by the productivity analysis system, wherein the client data comprises medical procedure statistics associated with the medical diagnostic system for a medical facility.

32. The productivity tool of claim 31, wherein the remote interface comprises a server to communicate between the remote interface and the productivity analysis system via the network.

33. The productivity tool of claim 31, wherein the data entry fields comprise a field for selecting the medical diagnostic system employed at the medical facility from a plurality of medical diagnostic systems comprising a plurality of modalities.

34. The productivity tool of claim 31, wherein the data entry fields are configured for multiple selections of medical diagnostic systems for productivity comparison.

35. The productivity tool of claim 33, wherein the data entry fields comprise a field for selecting an upgrade medical diagnostic system for productivity comparison with the medical diagnostic system employed at the medical facility.

36. The productivity tool of claim 31, wherein the data entry fields comprise fields for entering time and volume data associated with medical procedures employing the medical diagnostic system at the medical facility.

37. The productivity tool of claim 31, wherein the data entry fields comprise a field for entering a financial statistic associated with medical procedures employing the medical diagnostic system at the medical facility.

38. The productivity tool of claim 31, wherein the medical procedure statistics comprise a mix of medical procedures provided at the medical facility.

39. The productivity tool of claim 31, wherein the productivity analysis comprises a productivity comparison between the medical diagnostic system and at least one other medical diagnostic system, the productivity comparison allowing the client to evaluate benefits of a system upgrade to the at least one other medical diagnostic system.

40. The productivity tool of claim 39, wherein the productivity comparison comprises at least one indicator of new procedures provided by the at least one other medical diagnostic system.

41. A method for analyzing productivity of a resource, the method comprising:
 - electronically directing client data from a remote interface to a productivity analysis system via a network, the client data comprising procedure statistics associated with an imaging system;
 - analyzing the client data with the productivity analysis system;
 - generating a productivity analysis comprising a productivity comparison of the imaging system and a proposed upgrade imaging system; and
 - transmitting the productivity analysis to the client via the network.
42. The method of claim 41, wherein electronically directing via the network comprises electronically directing via the Internet.
43. The method of claim 41, comprising providing a form field for selecting the imaging system from a plurality of imaging systems comprising a plurality of modalities.
44. The method of claim 43, comprising allowing selection of multiple imaging systems for productivity comparison.
45. The method of claim 41, comprising providing a form field for selecting the proposed upgrade imaging system from a plurality of imaging systems comprising a plurality of modalities.
46. The method of claim 41, comprising providing a form field for entering time and volume data relating to procedures employing the imaging system.
47. The method of claim 41, comprising providing a form field for entering a financial statistic relating to procedures employing the imaging system.
48. The method of claim 41, comprising receiving the client data at the productivity analysis system.

49. The method of claim 48, wherein receiving the client data comprises receiving a mix of imaging procedures provided at a medical facility.

50. The method of claim 41, wherein analyzing the client data comprises searching a resource database having operational statistics for a plurality of imaging systems.

51. The method of claim 41, wherein generating the productivity analysis comprises providing a productivity comparison between the imaging system and a plurality of proposed upgrade imaging systems.

52. The method of claim 41, wherein generating the productivity analysis comprises providing at least one indicator of additional procedures provided by the proposed upgrade imaging system.

53. The method of claim 41, comprising providing an option to purchase the proposed upgrade imaging system.

9. **APPENDIX OF EVIDENCE**

N/A

10. **APPENDIX OF RELATED PROCEEDINGS**

N/A